well to other objects. Under the microscope, using the compressor, the quality in question is still exhibited; when a cluster of blood corpuscles is broken up, and its parts set in motion, some of them, while adhering to each other, and only then, are drawn out almost to a fibre; and yet the instant the adhesion is broken, the detached particles, now solitary, recover their circular outline. This viscid property of the blood corpuscles appears to be distinct from that of coagulable lymph; lymph being viscid, not in its liquid state, when it attenuates even the serum, but in its transition state, just before and when in the act of coagulating.

The third subject treated of, is the tendency of fibrin in coagulating to a certain arrangement of its particles. In proof of this he adduces the instance of the investing pellicle or membrane of the buffy-coat; the tubes of the fibrin formed as a cast, when blood is stirred with a rod in the act of coagulating. The cyst-like cavities occasionally met with in fibrinous concretions, whether filled with the serum or puruloid fluid, found after death in the heart and great vessels;—in all which a kind of *nisus formativus* is displayed, and an arrangement more or less regular; and which may be applicable, he believes, to account for the cysts of aneurisms speedily following punctured wounds of arteries, and for the sacs of false aneurisms, continuous with, and hardly to be distinguished from, the lining membrane of the vessel.

The last subject treated of, is the effect of serum in promoting the coagulation of milk—a property which serum possesses in common with the white and yolk of the egg, on the application of heat. The results of trials of mixtures of serum and milk in different proportions are stated, from which it appears, that 1 part of the former heated with 5 of the latter will occasion its coagulation, and even when mixed with a third more. From analogy, the author infers, that serum and white of egg may have a like effect on vegetable juices containing albuminous matter similar to casein. The action of one animal fluid, and those so like as serum and milk, he refers to as a curious subject for speculation, and as deserving attention, not only in relation to culinary, and some manufacturing processes, but also, it may be, in connection with physiology, and perhaps pathology.—*Proceedings of Royal Society of Edinburgh*, vol. ii, No. 26.

---

14. *Analysis of the Urine of Insane Patients*, in St. Luke's Hospital, in the year 1844. By Alex. J. Sutherland, M. D., and Edw. Rigby, M. D. (*London Med. Gazette*, June 6th, 1844.)

In examining the characters of the urine in the different forms of insanity, Drs. Sutherland and Rigby have selected that which was passed immediately after rising in the morning as being least liable to be affected by food, and therefore best calculated for affording a fair specimen of any peculiarities it might possess. The following is a summary of the results of their investigations:—

In mania and melancholia the prevailing colour of the urine is high; in dementia it is light.

It is acid in at least 80 per cent. of the mania and melancholia cases; in dementia, the proportion is much smaller—viz., 63·54 per cent.

Sediments of one sort or another occur in almost every case of mania and melancholia, especially the latter; in dementia, in only every other case.

The specific gravity in the two former species ranges most usually between 10·21 and 10·30; that of melancholia frequently exceeds even 10·30, whereas that dementia is usually found between 10·11 and 10·20.

Serous urine was a rare occurrence; viz., 7·50 in melancholia; in mania, 5·35 and dementia, only 1·04 per cent.

Excess of urea was seen most frequently in melancholia, least so in dementia.

Lithic acid and lithate of ammonia were likewise observed most frequently in melancholia, and least so in dementia.

Lithic acid being, in all three forms of insanity, of much more usual occurrence than lithate of ammonia.

Crystals of triple phosphate were met with in dementia at the rate of 25 per cent.; in mania, 23·21: and in melancholia, 6·66 per cent. Crystals of oxalate of lime were seen in every fourth case of melancholia, or, at the rate of 25 per cent. In mania, the proportion was 17·85, and in dementia, only 2·08 per cent.

Carbonates were seen most frequently in dementia and melancholia.

Muriates occurred at about the average of 13 per cent. in all three forms of insanity.

Muco-pus globules were most frequent in mania; viz., 17·85 per cent.; whereas in melancholia they were at the rate of 10, and in dementia of 7·72 per cent.

SUMMARY.

	Colour of urine.	Acid Urine.	Sediments.	Specific Gravity.	Serous.	Urea, Excess of.	Lithic Acid.	Lithate of Ammonia.	Triple Phosphate Crystals.	Oxalate of Lime.	Carbonates.	Muriate of Ammonia	Muco-pus
Mania	High	80·35 per cent.	87·50 per cent.	Between 10·21 and 10·30	5·35 per cent.	33·92 per cent.	31·10 per cent.	10·61 per cent.	23·21 per cent.	17·85 per cent.	16·07 per cent.	14·28 per cent.	17·85 per cent.
Melancholia	High	80·00 per cent.	100 per cent	Between 10·21 and 10·30	7·50 per cent.	47·50 per cent.	47·50 per cent.	32·50 per cent.	6·66 per cent.	25· per cent.	30· per cent.	12·50 per cent.	10· per cent.
Dementia	Light	63·51 per cent.	54·16 per cent.	Between 10·11 and 10·20	1·01 per cent.	16·66 per cent.	13·51 per cent.	1·01 per cent.	25· per cent.	2·03 per cent.	31·37 per cent.	14·58 per cent.	7·27 per cent.

15. *Analysis of the Menstrual Fluid.*—Rindskopf* analyzed the menstrual discharge of a vigorous and healthy girl. It was extremely acid and contained:—

	1st Analysis.		2d Analysis.
Water	820·830	Water	821·892
Solid residue	179·170	Albumen and hæmatoglobulin	156·457
Salts	10·150	Extractive matters and salts	20·651

Vogel† analyzed the menstrual discharge in a case of prolapsed uterus. It was of an intensely red colour, thick, and viscid; it did not coagulate, but, after standing for some time, a colourless serum separated. The fluid obtained at the commencement of the flux yielded 83·9 parts of water, and 16·1 of solid materials: and that obtained near the termination yielded 83·7 of water, and 16·3 of solid materials. The serum contained 93·53 parts of water, and 6·47 of solids, of which 0·64 were fixed salts.

No one who has carefully studied this secretion can doubt that fibrin is generally present. Its determination is, however, often impossible, in consequence of the vaginal mucus preventing the coagulation of the blood.

In the corresponding secretion in the mare, we succeeded in obtaining 4·3 parts of fibrin from 36 grains of the clotted portion of the discharge.—*Ranking's Abstract.*

MATERIA MEDICA AND PHARMACY.

16. *The Medicinal qualities of Indian Hemp and the best mode of administration.*—The hemp has long been known in India as a powerful intoxicating plant. It has in consequence a variety of names applied to it in Arabic, some of which have been translated as "leaf of delusion," "increaser of pleasure," "exciter of desire," "cementer of friendship," &c. Linnæus was well acquainted with its "vis narcotica, phantastica, dementens."‡ In 1839, Dr. O'Shaughnessy§ directed attention to it as a valuable remedy in rheumatism, tetanus, cholera, and infantile

* Canstadt's Jahrsbericht, 1844. † Ditto.

‡ Dr. Royle's Illustrations of the Botany of the Himalayan Mountains, p. 334.

§ On the preparation of the Indian Hemp or Gunjalh, Calcutta, 1839.